

State of California
Regional Water Quality Control Board
San Diego Region

EXECUTIVE OFFICER SUMMARY REPORT
May 14, 2003

ITEM: 9 a, b, and c

SUBJECT: Status Report: U.S. - Mexico Border Area Pollution Tracking Projects (*David Hanson*)

PURPOSE: Informational presentations

PUBLIC NOTICE: The public was notified of this item in the agenda notice for today's meeting, which was mailed on April 25, 2003.

DISCUSSION: There are several ongoing projects that are improving our understanding of the source and transport of surface water pollution in the U.S. – Mexico border region. Presentations will be provided for the following projects:

a. Ocean Imaging, Inc. (OI) – A satellite and aerial imaging system jointly funded by the Regional Board, the City of San Diego (City), and the United States International Boundary and Water Commission (USIBWC). Dr. Jan Svejksky of OI will make the presentation.

The project has established a remote sensing analysis and advisory delivery network between OI, the Regional Board, City, USIBWC, County Dept. of Environmental Health, and interested Mexican agencies. The network provides transfer of remote sensing-derived information that can be used to guide coastal management efforts. Data collected thus far has provided valuable insight into coastal contaminant source identification and transport.

Noteworthy accomplishments include capture of satellite and aerial images of significant ocean discharge plumes from the Tijuana and San Diego Rivers, South Bay Ocean Outfall (SBOO), San Antonio de los Buenos treatment plant in Tijuana, and other lesser sources under a variety of ocean current conditions affecting plume transport. Satellite and aerial images are collected on a regular schedule (and during specific events of interest) and posted to OI's website for viewing. Currently, the Regional Board has contributed

approximately 60% of the \$310,000 funding for the project. The City and USIBWC have contributed approximately 20% each. A goal is to gradually decrease the Regional Board contribution and increase that of the City and USIBWC so that they solely fund an ongoing remote sensing program.

- b. San Diego State University (SDSU) – Tijuana River watershed water quality monitoring and modeling project funded by the Regional Board. Additionally, SDSU will present a 3-dimensional visualization of water quality data in the ocean waters surrounding the SBOO. Dr. Richard Gersberg of SDSU will make the presentation.

SDSU has several efforts underway regarding border water quality monitoring and modeling. One is to obtain remotely sensed imagery and water samples in the Campo-Tecate Creek sub-basin within the Tijuana River Watershed (TRW). Water sample analysis focuses on measuring coliform and metals. Ultimately, the USEPA's Better Assessment Science Integrating Point and Nonpoint Sources system (BASINS), a multipurpose environmental analysis system for use by regional, state, and local agencies in performing watershed and water quality based studies, will be used to predict pollution loads in the TRW. Currently, the Regional Board has made available \$190,000 for this project. Work on this phase will be completed this spring.

Additionally, this Regional Board has made available \$48,500 for water quality monitoring of the Tijuana River at the Hollister Street Bridge monitoring station. Samples will be analyzed for coliform and metals. Work on this project is expected to be completed in spring of 2004.

SDSU has also created a 3-dimensional presentation of shoreline, nearshore, and offshore coliform data collected as part of the SBOO receiving water monitoring program. The Regional Board, however, has not funded this effort.

- c. Scripps Institute of Oceanography (SIO) – The San Diego Coastal Ocean Observing System (SDCOOS), funded under the California Clean Beaches Initiative (CBI), merges a number of oceanographic and environmental sensing technologies. Dr. Eric Terrill of SIO will make the presentation.

In 2001, \$1.5 million of CBI funds were made available to the City of Imperial Beach to address high fecal coliform concentrations in its bathing waters. SIO was awarded \$750,000 for development and implementation of a real-time coastal monitoring system using a number of emerging technologies, including high frequency radar (also referred to as Coastal Ocean Dynamics Radar [CODAR]). Partnerships established with this program have enabled a direct link between the information generated by this observing system, Scripps oceanographers, and a wide audience of end-users including local and regional agencies, policy makers, and the public at large. On October 18, 2002, SIO launched the SDCOOS website at <http://sdcoos.ucsd.edu/>

Thus far, the SDCOOS has provided valuable information on the ever-changing ocean current conditions in the water offshore of Point Loma, Coronado, Imperial Beach, the Tijuana River mouth, and northern Mexico.

LEGAL CONCERNS: None

SUPPORTING
DOCUMENTS: None

RECOMMENDATION: No formal Board action will be taken on this item.